BIJL et al. - Appln. No. 08/821,025

IN THE CLAIMS

This listing of claims replaces all prior versions, and listings, in this application.

Claims 1-67 (canceled)

68. (previously presented) A dried composition that is stable on storage at room temperature consisting essentially of granules comprising extruded microorganisms which are fungi of the genus *Mortierella*, wherein said fungi are dead and wherein the granules in the composition have a porosity generated by drying of granular particles of the extruded microorganisms and have a diameter between 0.1 millimeters to 12 millimeters.

Claims 69-71 (canceled)

72. (currently amended) The granule composition of claim <u>68</u>-71, wherein the fungi are *Mortierella alpina*.

Claims 73-75 (canceled)

76. (previously presented) The granule composition of claim 68, wherein the granules comprise a polyunsaturated fatty acid.

77. (previously presented) The granule composition of claim 76, wherein the polyunsaturated fatty acid is contained in a lipid.

78. (currently amended) The granule composition of claim 76, wherein the polyunsaturated fatty acid is arachidonic acid a C18, C20 or C22 ω -3-polyunsaturated fatty acid or a C18, C20 or C22 ω -6-polyunsaturated fatty acid.

Claim 79 (canceled)

80. (previously presented) The granule composition of claim 68, wherein the granules comprise arachidonic acid, eicosapentaenoic acid, or a combination of the foregoing.

Claims 81-82 (canceled)

83. (currently amended) The granule composition of claim 68, wherein the granules have [[a]] an average dry matter content of 80% or more.

Claim 84 (canceled)

- 85. (previously presented) The granule composition of claim 68, wherein the granules are obtained by extruding a biomass having a dry matter content of 25% to 80%.
- 86. (previously presented) The granule composition of claim 68, wherein the granules are obtained by mechanical extrusion.
- 87. (previously presented) The granule composition of claim 68, wherein the diameter of the granules is 0.3 millimeters to 10 millimeters.
- 88. (previously presented) The granule composition of claim 68, wherein the diameter of the granules is 1.5 millimeters to 6 millimeters.
- 89. (previously presented) The granule composition of claim 68, wherein the diameter of the granules is 2 millimeters to 3 millimeters.
- 90. (previously presented) The granule composition of claim 68, wherein the length of the granules is on average 2 to 6 times the diameter.

- 91. (previously presented) The granule composition of claim 68, wherein the porosity of the granules is 15% to 50%.
- 92. (previously presented) The granule composition of claim 68, wherein the porosity of the granules is 20% to 40%.
- 93. (previously presented) The granule composition of claim 68, wherein the porosity of the granules is 25% to 35%.
- 94. (previously presented) The granule composition of claim 68, wherein the porosity of the granules allows solvent access.
- 95. (previously presented) The granule composition of claim 68, wherein the granules are free flowing.
- 96. (withdrawn) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:
- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;
- b) extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;
- c) drying the granular particles to give dried granules as defined in claim 68 having an average dry matter content of at least 80%; and
- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).

Claims 97-112 (canceled)

113. (withdrawn/currently amended) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 68 having [[a]] an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and
- b) extracting or isolating the or each compound from the dried granules by solvent extraction.
- 114. (previously presented) Dried granules comprising extruded microorganisms which are fungi of the genus *Mortierella*, wherein the dried granules:
- have a porosity generated by drying of granular particles of the extruded microorganisms;
- (ii) comprise arachidonic acid; and
- (iii) have an average dry matter content of 80% or more.
- 115. (currently amended) The dried granules of claim 114, wherein the arachidonic acid is contained in a lipid.
- 116. (previously presented) The dried granules of claim 114, wherein the porosity of the granules is 15% to 50%.
- 117. (new) The dried granules of claim 114, wherein the dried granules have a diameter from 0.1 millimeters to 12 millimeters.
- 118. (new) The dried granules of claim 117, wherein the dried granules have a diameter from 0.3 millimeters to 10 millimeters.
- 119. (new) The dried granules of claim 114, wherein the granules have a lipid content from 30% to 50% by weight.
- 120. (new) The dried granules of claim 114, wherein the fungi are *Mortierella alpina*.

- 121. (new) Dried granules comprising microorganisms which are fungi of the genus *Mortierella*, wherein the dried granules:
- (i) have a porosity that allows solvent access;
- (ii) comprise arachidonic acid; and
- (iii) have an average dry matter content of 80% or more.
- 122. (new) The dried granules of claim 121, wherein the porosity of the granules is 15% to 50%.
- 123. (new) The dried granules of claim 121, wherein the dried granules have a diameter from 0.1 millimeters to 12 millimeters.
- 124. (new) The dried granules of claim 123, wherein the dried granules have a diameter from 0.3 millimeters to 10 millimeters.
- 125. (new) The dried granules of claim 121, wherein the dried granules have a porosity generated by drying of granular particles comprising the microorganism.
- 126. (new) The dried granules of claim 121, wherein the dried granules are obtained by extrusion.
- 127. (new) The dried granules of claim 121, wherein the arachidonic acid is contained in a lipid.
- 128. (new) The dried granules of claim 121, wherein the granules have a lipid content from 30% to 50% by weight.
- 129. (new) The dried granules of claim 121, wherein the fungi are Mortierella alpina.

- 130. (new) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 121; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 131. (new) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 122; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 132. (new) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 123; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 133. (new) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 124; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.
- 134. (new) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 125; and
- extracting or isolating the arachidonic acid from the dried granules by solvent extraction.

135. (new) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 126; and
- extracting or isolating the arachidonic acid from the dried granules by solvent extraction.

136. (new) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 127; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.

137. (new) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 128; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.

138. (new) A process for the isolation of arachidonic acid from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 129; and
- b) extracting or isolating the arachidonic acid from the dried granules by solvent extraction.

139. (new) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:

- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;
- b) extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;

- c) drying the granular particles to give dried granules as defined in claim 72 having an average dry matter content of at least 80%; and
- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).

140. (new) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:

- a) providing dried granules as defined in claim 72 having an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and
- b) extracting or isolating the or each compound from the dried granules by solvent extraction.

141. (new) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:

- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;
- b) extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;
- c) drying the granular particles to give dried granules as defined in claim 76 having an average dry matter content of at least 80%; and
- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).

142. (new) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:

a) providing dried granules as defined in claim 76 having an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and

- b) extracting or isolating the or each compound from the dried granules by solvent extraction.
- 143. (new) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:
- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;
- b) extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;
- c) drying the granular particles to give dried granules as defined in claim 77 having an average dry matter content of at least 80%; and
- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).
- 144. (new) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 77 having an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and
- b) extracting or isolating the or each compound from the dried granules by solvent extraction.
- 145. (new) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:
- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;
- b) extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;
- c) drying the granular particles to give dried granules as defined in claim 78 having an average dry matter content of at least 80%; and

- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).
- 146. (new) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 78 having an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and
- b) extracting or isolating the or each compound from the dried granules by solvent extraction.
- 147. (new) A process for the isolation of one or more compound(s) from a microbial biomass which comprises fungi of the genus *Mortierella* that has produced such a compound, the process comprising:
- a) providing, or obtaining a biomass with a dry matter content of from 25% to 80%;
- b) extruding the biomass into granular particles having an average dry matter content of from 25% to 80%;
- c) drying the granular particles to give dried granules as defined in claim 80 having an average dry matter content of at least 80%; and
- d) purifying, extracting or isolating the or each compound from the dried granules resulting from (c).
- 148. (new) A process for the isolation of one or more compound(s) from granules of biomass, the process comprising:
- a) providing dried granules as defined in claim 80 having an average dry matter content of at least 80%, the granules having been derived from a microbial biomass comprising microorganisms that have produced such a compound; and
- b) extracting or isolating the or each compound from the dried granules by solvent extraction.